Applicants' undersigned attorney can be reached at the address shown below.
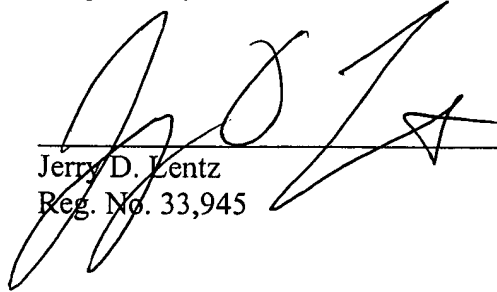
A check is enclosed for the excess claims fee. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 11/15/01

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Version with markings to show changes made

In the claims:

Claims 4 and 14-18 have been cancelled.

Claims 1-3 and 5-13 have been amended as follows:

1. (Amended) A receiver for recovering data for at least one of a plurality of users from [contemporaneously detected like modulated] radio signals generated by said plurality of users [from user data in combination with a plurality of user specific codes], said receiver comprising:

[-]a plurality of data detectors [detector means (24, 24')] each of the data dectectors [which is operatively] associated with one of a [the] plurality of [the user specific codes and one of a plurality of] temporal displacements in[according to with respect to an impulse response of] a communications channel through which the radio signals [have] passed, [wherein] each of said data detectors [detector means operates (24, 24') operating] to estimate a symbol [symbols of said data] for one of said plurality of users from the [said] received radio signals [in combination with the said user specific spreading code and the said temporal displacement,];

[-]a signal strength estimator [estimation means (26) which operates] to determine strengths [a relative strength] of the [received] radio signals [from which each of said user data symbols was estimated by said data detectors,]; and

[-]a receiver controller [(30) which operates] to assign the [said] user codes and the [said] temporal displacements to each of said plurality of data detector [(24, 24'), wherein said receiver controller (30) operates to re-assign the said plurality of spreading codes and the said temporal displacements to each of said plurality of data detector detectors (24, 24') consequent upon said] according to the [a relative] strengths [strength] of the [said] radio signals, [thereby facilitating recovery of data symbols for said at least one user.

characterised in wherein

said] the receiver controller [(30) operates to] assigning [assign said user specific codes to said plurality of data detector means detectors (24, 24') to the effect that a different number of said data detector means detectors (24,24') are assigned the same user specific spreading code and different temporal displacements] a user code [for a first user having a first relative relatively weak signal strength than for a second user having a second relative relatively strong signal

strength.] <u>for a first number of data detectors and a user code for a second user to a second number of data detectors, the first number of data detectors having different temporal displacements than the second number of data detectors.</u>

2. (Amended) The [A] receiver of [as claimed in Claim] claim 1, wherein said receiver controller [(30) operates to] assigns [assign said user specific codes to said plurality of data detectors (24, 24') to the effect that] more of said data detectors [(24, 24') are assigned the same user specific spreading code and different temporal displacements for a] to the first user<u>, the first user </u>having a <u>weaker </u>[relatively weak] signal strength than [to] the second [for a] user [having a relatively strong signal strength].

3. (Amended) The [A] receiver of [as claimed in Claim] claim 1, wherein said receiver controller [(30) operates to] assigns [assign said user specific codes to said plurality of data detectors (24, 24') to the effect that] more of said data detectors [(24, 24') are assigned the same user specific spreading code and different temporal displacements for a] to the first user<u>, the first user</u> having a [relatively] <u>a stronger </u>[strong] signal strength than [to] the second [for a] user [having a relatively weak signal strength].

5. (Amended) The [A] receiver of [as claimed in] claim 2,[1 and] further comprising[: including] a combiner [means (28) coupled to said plurality of data detector means (24, 24'), said combiner means and arranged] to combine the [said] estimated symbols associated with the first [same] user to form [corresponding] composite symbols.[symbol decisions to recover the data for the user.]

6. (Amended) The [A] receiver [as claimed in] of claim 5 [and] further comprising[: including] [-]a data store [(22) which serves] to store the [said] radio signals received within a pre-determined time window, wherein [which] the stored radio signals are input [iteratively fed] to said data detectors [(24, 24')] <u>from the data store </u>under control of said receiver controller [(30)].

7. (Amended) The [A] receiver [as claimed in] of claim 3[1], wherein said [the] data detector means <u>comprise </u>[are] rake fingers [(24, 24')],[wherein] the user specific codes <u>comprise</u>[are

being] spreading codes, and the radio signals from the plurality of users are [being] generated in accordance with a code division multiple access process.

8. (Amended) The [A] receiver of[as claimed in] claim 6[1], wherein said signal strength estimator [means] re-estimates[(26) further operates to estimate] the signal strength [of components] of the [received said] radio signals [received] at the [said] temporal displacements, and [wherein] said receiver controller [(30) further operates to re-assign said] re-assigns the plurality of data detectors in accordance with the [said] re-estimated [relative] strength of the [said received] radio signals.[signal components.]

9. (Amended) A method of recovering data for at least one of a plurality of users from [contemporaneously detected like modulated] radio signals generated by said plurality of users [from user data and a plurality of user specific codes], said method comprising: [the steps of;] [-processing said radio signals with a plurality of data detector means so as to estimate] estimating data symbols with a plurality of data detector means, wherein said estimating comprises assigning each of the plurality of data detector means [associated with] to one of a plurality of [said users] user specific codes and one of [at] a plurality of temporal displacements [according to with respect to an impulse response of]in a communications channel through which the [said] received signals [have] passed; [-]determining strengths [a relative strength] of the [received] radio signals [from which each of said user data symbols were estimated]; and [-]re-assigning the plurality of user specific codes and the plurality of temporal displacements to each of the [said] plurality of data detector means [detectors for at least one of said users in dependence upon the relative signal strengths of said radio signals, characterised in that] wherein the re-assignment assigns a user code for a first user for a first [different] number of [the] data detector means [is carried out in such a way that to a first user with a signal signals having a first relative relatively weak signal strength is assigned a different]and a user code for a second user to a second number of data [said] detector means,[than a second user with a signal signals having a second relative relatively strong signal strength]the first number of data detector means having different temporal displacements than the second number of data detectors.

10. (Amended) The [A] method [as claimed in] of claim [Claim] 9, wherein [said] re-assigning assigns [chracterised in assigning] more of the data detector means [detectors] to the [an] first user [with signals], the first user having a weaker [relatively weak] signal strength than [to] the second [a] user [with signals having a relatively strong signal strength].

11. (Amended) The [A] method [as claimed in] of claim [Claim] 9, wherein [said] re-assigning assigns [characterised in assigning] more of the data detector means [detectors to an] to the first user [with signals], the first user having a stronger [relatively strong] signal strength than the second [a] user [with signals having a relatively weak signal strength].

12. (Amended) The [A] method [as claimed in any] of claim 10 [Claims 9 to 11], [and] further comprises[: including the steps of;
-storing said radio signals received within a pre-determined temporal window; and
-re-estimating said user data symbols for said re-assigned codes and temporal displacements from said stored radio signals, thereby providing an improved estimate of said user data symbols.]
combining the estimated data symbols associated with the first user into a corresponding composite symbol.

13. (Amended) The [A] method of [as claimed in Claim] claim 12, [and] further comprising:
[including the step of
-further re-assigning said user specific codes and said temporal displacements in dependence upon said relative signals strengths and further re-estimating said user data symbols from said stored received radio signals, further detecting said user data symbols.]
storing the received radio signals within a pre-determined time window; and
re-estimating the user data symbols for the re-assigned codes and temporal displacements from the stored radio signals.